Claims:

1. A powder mixture consisting of zinc/titanium mixed oxide particles, titanium dioxide particles and zinc oxide particles, wherein the zinc/titanium mixed oxide particles have a composition according to the formula $(ZnO)_{1-x}(TiO_2)_x$, where $0.01 < x < 0.99$, and are obtained from a thermal process and wherein the powder mixture exhibits remission which, in the UV range from 320 to 400 nm, is lower than that of titanium dioxide and, in the UV range below 320 nm, is lower than that of zinc oxide.

2. A powder mixture according to claim 1, characterised in that the content of zinc/titanium mixed oxide particles is at least 50 wt.%, particularly preferably at least 80 wt.%.

3. A powder mixture according to claims 1 or 2, characterised in that the zinc/titanium mixed oxide particles have a composition $(ZnO)_{1-x}(TiO_2)_x$, where $0.05 < x < 0.80$.

4. A powder mixture according to claims 1 to 3, characterised in that the zinc/titanium mixed oxide particles are crystalline.

5. A powder mixture according to claims 1 to 4, characterised in that the isoelectric point is between that of zinc oxide and that of titanium dioxide.

6. A powder mixture according to claims 1 to 5, characterised in that the proportion of the rutile modification of the titanium dioxide particles amounts to at least 1%, relative to the sum of rutile, anatase and brookite modification.

7. A powder mixture according to claims 1 to 6, characterised in that the BET surface area is between 1 and 100 m^2/g.

8. A powder mixture according to claims 1 to 7, characterised in that the chloride content is less than 500 ppm.

9. A process for the production of the powder mixture according to claims 1 to 8, characterised in that an aerosol, which contains a zinc compound, is homogeneously mixed with a mixture containing a titanium compound, optionally an inert gas, a fuel gas and a gas containing free oxygen in a mixing chamber of a burner as is used for the production of pyrogenic oxides, the mixture of all the components is ignited at the mouth of the burner and combusted in a cooled flame tube, then the resultant solids are separated from the gaseous reaction products, optionally purified, and thermally treated.

10. A process according to claim 9, characterised in that the zinc compound and the titanium compound are present in a ratio such that the reaction product contains between 20 and 95 wt.%. of zinc oxide.

11. A process according to claims 9 or 10, characterised in that titanium tetrachloride is used as the titanium compound.

12. A process according to claims 9 to 11, characterised in that the aerosol is produced by atomisation by means of a two-fluid nozzle or by an aerosol generator.

13. A process for the production of the powder mixture according to claims 1 to 8, characterised in that titanium dioxide powder is dispersed in the presence of a solution of a zinc compound, wherein the ratio of titanium dioxide and zinc salt corresponds to the subsequently desired ratio of titanium dioxide and zinc oxide in the final product, the mixed oxide particles being calculated separately as titanium dioxide and

zinc oxide, then the solvent is removed by evaporation and the residue is thermally treated.

14. A process according to claims 9 to 13, characterised in that the thermal treatment proceeds at temperatures of 400 to 600°C over a period of 0.5 to 8 hours.

15. A process according to claims 9 to 14, characterised in that zinc chloride, zinc nitrate and/or organozinc compounds are used as the zinc compound.

16. A process according to claims 13 to 15, characterised in that the titanium dioxide is produced pyrogenically.

17. A sunscreen preparation containing the powder mixture according to claims 1 to 8, wherein the content of the powder mixture is between 0.01 and 25 wt.%, relative to the quantity of the sunscreen preparation.

18. Use of the powder mixture according to claims 1 to 8 as an adsorbent for UV radiation.